APPENDIX 14

SAMPLE DD FORM 1391s



1. COMPONENT DLA/DFSC	FY 193	93 NILITARY	CONSTRUC	TION	PROJE	CT DATA	2. DATE	
3. INSTALLATION DEFENSE FUEL		ION DINT (DESP) WHEREVER,	USA		JECT TITLE URRING MAINTE	NANCE		
5. PROGRAM ELEM	ENT	6. CATEGORY CODE	7. PROJECT NUI	4BER		8. PROJECT COST (\$000)		
			9. COST EST	MATES				
	ITE	1		U/M	QUANTITY	UNIT COST	COST (\$000)	
	t terified) /stems ction Mains nance ure Testing n Inspections (esset Cert	g on/Haintenance	4M	P				
	•	ipment Certification						

10. DESCRIPTION OF PROPOSED CONSTRUCTION:

Recurring maintenance. Perform by Contract, PWC, or fuel department labor. Work to be performed by fuel department labor will have only non-labor costs submitted to DFSC for funding.

11. JUSTIFICATION:

ADP sevice to keep software and hardware operational. Fuel terminal equipment maintenance required to minimize breakdowns. Various calibrations to ensure inventory accuracy. Cathodic protection maintenance to ensure that underground metallic structures are adequately protected. Grounds maintenance to minimize fire hazard. Pipeline pressure testing is required by 49 CFR 195. Inspection and maintenance of fire protection equipment is required by 29 CFR 1910. Cyclical painting to provide corrosion resistance. Various certifications to ensure equipment is maintained in safe operating condition.

DLA/DFSC				······································		31 DEC 1992	
3. INSTALLATION AND LOCA CAMP SWAMPY, TX	TION		4. PROJECT TITLE COAT/REPAIR INTERIORS OF BULK FUEL STORAGE TANKS				
5. PROGRAM ELEMENT 6. CATEGORY CODE 7. PROJECT NU MR1-93					r (\$000) 6		
	1	9. COST EST	MATES				
11	EM		U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY SEE ATTACHED COST ESTI MAINTENANCE WORK	MATE FOR DETAILS		LS L S	 		2,500 (2,050)	
REPAIR WORK			LS			(450)	
CONTINGENCIES (5%)						125	
SUSTOTAL						2,625	
SION (6.5%)		;				171	
TOTAL		:				2,796	
PLANNING AND DESIGN COST		4M	D Ls	T.F		(168)	

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Clean interior, remove and dispose of bottom sludge, sandblast interior, repair tank if necessary, and coat the interior of nineteen 50,000 BBL JP-5 and JP-8 bulk storage tanks, facility numbers 612, 629, 630, 632-637, 640, 643-645, and 648-653. Estimated replacement cost of the nineteen tanks is \$28,500,000.

11. REQUIREMENT:

PROJECT: Provides clean, well coated, repaired interiors of nineteen DLA bulk fuel storage tanks used for storage of JP-5 and JP-8 fuels.

REQUIREMENT: Navy and Air Force aircraft in the immediate area require fuels support in excess of 200,000 gallons per day. Clean, uncontaminated storage is required for JP-5 and JP-8 aircraft fuels. Bulk fuel storage tanks are the primary means for providing aviation fuel logistics support for three Air Force bases and two Naval air stations in the immediate area. DFSP has the largest fuel storage capacity within a 500 mile radius, and no other means of government storage is available. Additional fuel barge deliveries allow capacity to be maintained, however, delivery costs have increased significantly.

CURRENT SITUATION: The nineteen fuel storage tanks are showing signs of severe deterioration, since they have never been coated during their 34-40 year life span. Leaks have been detected in 2 of the older tanks (tanks 629 and 630), and the newer tanks, which are of similar construction, may also be developing leaks. Tanks 629 and 630 have been taken out of service, and additional fuel barge deliveries have been necessary to maintain fuel capacity at operational needs.

IMPACT IF NOT PROVIDED: Failure to provide this project will allow bottom sediment and water in the tanks to continue to severely corrode tank bottoms, leading to product contamination, possible leaks, loss of fuel products and eventual damage to the environment.

SAMPLE

1. COMPONENT FY 93	_ HILITARY (CONSTRUC	TION	PROJE	CT DATA	2. DATE 31 DEC 1992	
3. INSTALLATION AND LOCATI	ON		4. PROJECT TITLE CONSTRUCT LINER IN TANK DIKE				
5. PROGRAM ELEMENT	6. CATEGORY CODE 41110	7. PROJECT NUM C2-93	IBER		8. PROJECT COST (\$000) 140		
		9. COST EST	MATES				
ITE	1		U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY SEE ATTACHED DETAILED CO	DST ESTIMATE FOR DETAI	L\$	LS			125	
CONTINGENCIES (5%)						6	
SUBTOTAL						131	
SIOH (6.5%)						9	
TOTAL						140	
PLANNING AND DESIGN COST	(6%)		LS			(8)	
	SA	M	P	LE			

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Provide fabric lining to existing tank dike and basin. Apply sealant to lining and spray with polyethylene-like substance impervious to JP-4 fuel products.

11. REQUIREMENT

PROJECT: Line existing fuel tank dike and basin with fabric lining impervious to JP-4 fuel products.

REQUIREMENT: POL dikes and basins must be impermeable to fuels, and must be able to contain tank contents plus 10% in case of rupture. Existing dike is adequate, but a major spill would require costly clean-up and remediation. Impervious fabric liner would allow for easy clean-up at a minimal cost, should a spill occur. Project would allow base to comply with state spill prevention and countermeasures control (SPCC) program.

CURRENT SITUATION: Existing POL dike and basin are composed of bentonite clay, with a gravel overlayment. Spills are contained, however, complete recovery of fuel is not possible, due to the pooling of fuel beneath the gravel overlayment. In the past ten years, two spills have occurred. It is estimated that approximately 80 percent of the fuel was recovered each time. Any unrecovered fuel presents the possibility of contamination of rain water run-off, which would be in violation of our discharge permit with the state. In addition, similarly constructed berms within the fuel farm have required repairs due to severe errosion from rainwater fallout. Those berms are being repaired by installing an impervious fabric lining to prevent further errosion.

IMPACT IF NOT PROVIDED: Without impermeable containment, any rupture of tank could result in excessive loss of costly fuel, which may result in mixture of unrecovered fuel with rainwater, thereby causing groundwater contamination. Rainwater may errode the berm, thus compromising its integrity.

SAMPLE

1. COMPONENT DLA/DFSC	F Y <u>93</u>	NILITARY	CONSTRUC	TION	PROJE	CT DATA	2. DATE 31 DEC 1992	
3. INSTALLATION AND LOCATION CAMP SWAMPY, TX				4. PROJECT TITLE REPAIR DAMAGED FUEL PIER AND DOLPHINS				
5. PROGRAM ELEME						8. PROJECT COS		
			9. COST EST	IMATES				
ITEM				U/M	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY SEE ATTACHED O		ATE FOR DETAILS		LS			156	
REPAIR WORK				LS			(130)	
CONSTRUCTION	WORK			LS			(26)	
CONTINGENCIES (5	%)						8	
SUBTOTAL							164	
\$10H (6%)							10	
TOTAL							174	

10. DESCRIPTION OF PROPOSED CONSTRUCTION

PLANNING AND DESIGN COST (6%)

Replace 34 damaged and missing fenders on the pier fender system, and replace eight missing three-pile dolphins with seven-pile dolphins. Repair damaged concrete pier structures.

11. REQUIREMENT

PROJECT: Repair pier fender system and dolphins by replacing damaged and missing fenders and piles, and repair concrete

REQUIREMENT: DFSP supplies jet fuel and marine diesel to several installations throughout the area. Fuel is delivered to the DFSP via barge to the pier where fuel travels via pipeline from the barge to the fuel storage tanks. Structurally sound pier fender systems and dolphins are required to protect the pier and vessels during the mooring of ships alongside the pier. This pier is the only pier at DFSP designed for discharging and loading of ocean-going petroleum tankers. The alternative to replace the pier has been considered, and is determined to have twice the net present value to repair the pier, since the pier only requires replacement of the damaged fenders and dolphins. Replacement of the three-pile dolphins with seven-pile dolphins is necessary, since the three-pile dolphins have been destroyed because they are not sufficient for their intended purpose, and are not able to meet the requirements of the larger ocean-going vessels.

<u>CURRENT SITUATION</u>: Pier fender systems, dolphins and concrete structures on the fuel pier were heavily damaged when a Navy tanker collided to the fuel pier during a recent mooring operation. The remaining fender systems are presently being used for mooring tankers along the fuel pier, but are not expected to last without protection of the dolphins.

IMPACT IF NOT PROVIDED: Fuel barges and tankers will continue to deliver fuel to a pier that may be structurally unsound. Further deliveries of fuel to the pier may cause additional damage to the fender systems and pier structures. DFSP's ability to load and discharge tankers carrying DLA bulk fuel products will be seriously disrupted if the pier is damaged beyond use, thereby hampering DFSP's fuel distribution mission.

SAPLE

(10)

1. COMPONENT F Y 93 DLA/DFSC	_ MILITARY C	ONSTRUC	TION	PROJE	CT DATA	2. DATE 31 DEC 1992	
3. INSTALLATION AND LOCAT CAMP SWAMPY, TX	ION		4. PROJECT TITLE REPAIR BULK FUEL PIPELINE				
5. PROGRAM ELEMENT	6. CATEGORY CODE 12510	7. PROJECT HUN RC4-93	BER		8. PROJECT COST (\$000) 2,963		
		9. COST ESTI	MATES				
I TEI	1		U/H	QUANTITY	UNIT COST	COST (\$000)	
PRIMARY FACILITY FROM COS	ESTIMATE FORM NAVFAC 1	1013/7 (ENCL)	LS			2,650	
REPAIR WORK			LS] 	(2,500)	
CONSTRUCTION WORK			LS			(150)	
CONTINGENCIES (5%)						133	
SUBTOTAL						2,783	
SIOH (6.5%)						181	
TOTAL						2,963	
PLANNING AND DESIGN COST (6%)		LS	•-	••	(178)	
	SA	M	P	LE			

10. DESCRIPTION OF PROPOSED CONSTRUCTION
Replace 6000 linear meters of the existing 6500 linear meter 10^M pipeline with 10^M steel pipe, add leak detection monitoring and cathodic protection along the pipeline. Install pig launching and receiving stations and close the existing 6000 LM pipeline in accordance with EPA and state regulations. Replacement cost of the pipeline is \$6,550,000.

11. REQUIREMENT

<u>PROJECT</u>: Replace various pumps and the majority of existing fuel pipeline used to transfer bulk fuels from the pier to the bulk storage tanks. Install leak detection, cathodic protection and provide pig launching and receiving stations.

REQUIREMENT: DFSP supplies jet fuel and marine diesel to several installations throughout the area. Transportation is required to bring the fuel onto the DFSP, and to issue the fuel to the installations. This pipeline provides a means to transport the fuel to the DFSP. Alternatives of repairing only the corroded sections of pipeline vs. replacement of the entire pipeline were reviewed, and it was determined that although the initial cost of repair would be less costly than entire replacement, due to the advanced corrosion of the pipeline, extensive repairs would be required every three years. Consequently, the total present value cost of the repairs would exceed the total present value of replacement within six years. Another alternative includes delivery via railcar to a truck loading facility, thus tripling transportation costs, due to additional railcar deliveries and extensive truck traffic from the loading facility to the unloading facility near the bulk tanks. In addition, the truck loading facility will require some modification, if it is to be used to the required capacity. Thus, the total present value of delivery via railcar and truck exceeds the present value of delivery via replaced pipeline within four years.

<u>CURRENT SITUATION</u>: The existing 47 year old pipeline developed two new leaks during January 1993. These leaks occurred in the wall of the pipe, not at a joint or weld, and are the result of generalized corrosion from the outside of the pipe. "Intelligent pig" testing was done on the pipeline, and it was determined that potential for 25-30 more leaks exist throughout the pipeline. Deterioration has reached the point that the Commanding General has ordered the pipeline to be emptied until permanent repairs can be made because of the liability for environmental contamination and fire. Temporary means of transporting fuel have been delivery via railcar to a truck loading facility, and then delivery to truck unloading facility near the bulk fuel storage tanks.

<u>IMPACT IF NOT PROVIDED</u>: Further incidents of leakage will cause ground water contamination and danger of disastrous fire. Long shutdowns of the pipeline will force DFSC to rely solely on railcar deliveries of fuel, at a much greater cost, and will leave the air station in a vulnerable position if railcar deliveries are interrupted for any reason.

SAMPLE

1. COMPONEN DLA/DFSC	T FY 93	_ MILITARY	CONSTRUC	TION	PROJE	C T D	ATA	2. DATE 31 DEC 1992
3. INSTALLA CAMP SWA	TION AND LOCATI MPY, TX	ON			CT TITLE	DING PLAT	FORM AND	PARKING LOT
5. PROGRAM	ELEMENT	6. CATEGORY CODE	7. PROJECT NUM	BER		8. PROJ	ECT COST	(\$000)

RMC6-93

234

12630

9. COST EST	IMATES			
ITEM	U/M	QUANTITY	UNIT COST	COST (\$000)
PRIMARY FACILITY SEE ATTACHED COST ESTIMATE FOR DETAILS	LS			210
REPAIR WORK	LS			(124)
MAINTENANCE WORK	LS			(50)
CONSTRUCTION WORK	LS			(36)
CONTINGENCIES (5%)				11
SUBTOTAL		••	••	221
S10H (6%)				13
TOTAL				234
PLANNING AND DESIGN COST (6%) SAM	P	LE		(14)

10. DESCRIPTION OF PROPOSED CONSTRUCTION

Repair pump, piping, valves, fittings, electrical systems and lighting, relaxation/fuel flow surge control tanks, and provide corrosion control of the entire steel structure of the truck loading rack. Install temperature compensating fuel flow metering, leak detection systems and cathodic protection. Provide subgrade repairs to parking lot and repair with concrete.

11. REQUIREMENT

PROJECT: Provide various repairs and corrosion control to truck loading rack. Provide fuel flow metering, leak detection and cathodic protection to loading rack. Provide subgrade repairs and repaye parking lot.

REQUIREMENT: DFSP supplies jet fuel and marine diesel to several installations throughout the area. Navy and Air Force aircraft at DFSP require fuels support in excess of 200,000 gallons per day. The primary means of providing fuel to the aircraft is via the refueling trucks, which are loaded via the truck loading rack. The hydrant system provides a a secondary means of fueling aircraft (approximately 40%), however, the use of the hydrant system has reached maximum capacity. No other means of fueling aircraft at the DFSP is available. In addition, the nine refueling trucks require adequate space for parking, when they are not in use, that will not contribute to foreign object damage (FCO) to aircraft.

CURRENT SITUATION: The existing facility structure has been damaged in various places due to occasional bumping by refueling trucks during fuel loading operations. Pump, piping, valves and fittings have experienced excessive wear and tear during their 30-year life, and require repair or replacements. Electrical systems and lighting are often down due to overload of the system, when all five pump stations are being used. The asphalt pavement is alligatored with numerous potholes, and there are large areas where the subgrade is exposed. Refueler trucks are experiencing stress cracking in the tanks due to the unlevel parking surface. Loose pavement causes potential for foreign object damage to aircraft due to loose impediments being drawn into the aircraft engines.

IMPACT IF NOT PROVIDED: The truck loading rack structure will continue to deteriorate, and the pump, piping, valves and fittings will eventually fail. The refueler trucks will continue to incur stress cracking and damages to the tanks due to contortion of the trucks from potholes throughout the parking area. Aircraft and human safety will continue to be jeopardized due to potential for aircraft foreign object damage from loose impediments being dragged to the aircraft apron from the truck loading rack by the refueler trucks.

SAMDI E

APPENDIX 15

MAINTENANCE DISCREPANCY CARD



MRC NO.: LA-M-1

EQUIPMENT NAME: Loading Arm

SERIAL NUMBER: J8-10B

MANUFACTURER: Acme

PROBLEMS/COMMENTS: The shut-off valve between the pier pipe and the arm is leaking. The arm was found filled with fuel. (For safety reasons, loading arms are drained after every fueling operation.) Twenty-four hours after the arm was drained, approximately 20 gallons of fuel had re-entered the arm. The valve needs to be repaired or replaced.

(After evaluation or job completion)

MANHOURS SPENT: 36

PERFORMED BY: Fuel Maintenance

MAINTENANCE DEFERRED TO:

REASON FOR DEFER: No spare valve in inventory to replace the leaky valve. After the valve was removed from the pier pipe and blind flange installed on the pipe, the valve was examined. Based on damages observed inside the valve cavity, the valve cannot be repaired.

· MAINTENANCE DISCREPANCY CARD



APPENDIX 16 TYPICAL TANK HISTORY RECORDS



TANK HISTORY RECORD

TECHNICAL INFORMATION TANK NUMBER: ST-32 LOCATION: Tenjo Vista TYPE OF CONSTRUCTION: Wd. Steel YEAR CONSTRUCTED: 1954 SHELL CAPACITY: 2,100 BBL SAFE CAPACITY: 2,000 BBL HEIGHT: 15 FT 8 IN DIAMETER: 23 FT 4 IN PRODUCT CHANGE RECORD DATE: 9 December 1994 FROM: Waste Oil TO: F-76 **REMARKS:** Temporary conversion for storing F-76 from Tank C-1. DATE: _____ FROM: _____ TO: ____ DATE: FROM: _____ TO: REMARKS: DATE: FROM: TO: REMARKS: COATING TYPE: Polyurethane (NFGS-09872) DATE COATED: 6 June 1988 COATING TYPE: DATE COATED: COATING TYPE: DATE COATED: COATING TYPE: _____ DATE COATED: ____ CATHODIC PROTECTION INFORMATION: Acme rectifier at Station 2. The rectifier was installed in 1980. OTHER INFORMATION: Pin hole leak was found on tank bottom in 1987. Tank was cleaned and a patch welded over the hole by PWC.

TANK CLEANING RECORD

TANK NUMBER: ST-32

DATE: 12 April 1987 **REASON FOR CLEANING:** To repair leaky tank bottom. CONDITION FOUND: Uniform rust throughout the tank interior. After tank was cleaned, a pin hole was found on tank bottom near tank wall manhole. ACTION PERFORMED: Pin hole area sandblasted clean and an 8" square patch was welded over the hole by PWC. DATE: 20 February 1988 REASON FOR CLEANING: Tank bottom coating project. CONDITION FOUND: Removed half barrel of sludge. Uniform rust found throughout the tank interior. The tank patch repaired in 1987 appeared in good condition. Tank cleaned by contractor as a part of the tank bottom coating project. ACTION PERFORMED: Tank bottom and wall 18" up above tank bottom were sand blasted and coated with polyurethane coating system per NFGS-09872). DATE: 9 December 1994 **REASON FOR CLEANING:** Converting from waste oil to F-76 CONDITION FOUND: Removed three barrels of sludge. Tank liner appeared in a good condition, without any sign of peeling or racking. Other than the normal surface rust on the non-lined portion of the tank wall, no significant deep pits were found. ACTION PERFORMED: Tank cleaned by flushing the entire tank interior with pressurized water. After tank dried, tank interior was visually inspected and tank plates thickness measured using an ultrasonic tester. Measuring results recorded.

APPENDIX 17

NAVAL FACILITIES ENGINEERING COMMAND ENGINEERING FIELD DIVISIONS (EFDs)



NAVAL FACILITIES ENGINEERING COMMAND ENGINEERING FIELD DIVISIONS (EFDs)

ADDRESS	TELEPHONE (COMMERCIAL/DSN)
Northern Division (Code 114) Naval Facilities Engineering Command Philadelphia, PA 19112-5000	(215) 755-6280/443-6280
Chesapeake Division (Code 114) Naval Facilities Engineering Command Bldg. 212, Washington Navy Yard Washington, DC 20374-5000	(202) 433-3760/288-3760
Atlantic Division (Code 114) Naval Facilities Engineering Command Norfolk, VA 23511-5000	(804) 444-9556/564-9556
Southern Division (Code 114) Naval Facilities Engineering Command P.O. Box 10068 Charleston, SC 29411-5000	(803) 743-5510/794-5510
Southwestern Division (Code 09E) Naval Facilities Engineering Command San Diego, CA 92132-5190	(619) 532-3825/522-3825
Western Division (Code 114) Naval Facilities Engineering Command P.O. Box 727 San Bruno, CA 94066-5000	(415) 877-7498/859-7498
Pacific Division (Code 114) Naval Facilities Engineering Command Pearl Harbor, HI 96860-5000	(808) 471-3948/471-3948
Naval Facilities Engineering Service Center (Code 422) 560 Center Dr. Port Hueneme, CA 93043-4328	(805) 982-4846/551-4846

A17-2

APPENDIX 18

GUIDANCE TO NEW EPA REGULATIONS ON HAZARDOUS WASTE FUELS AND USED OIL FUELS



GUIDE TO NEW EPA REGULATIONS ON HAZARDOUS WASTE FUELS AND USED OIL FUELS

1. INTRODUCTION

This guide summarizes the final EPA regulations (enclosure (1)) on the management of hazardous waste fuel and used oil fuel burned for energy recovery and discusses their impact on Navy activities. The regulations are very complex. This guide clarifies the functions subject to the regulations and Navy installation actions necessary for compliance.

2. DISCUSSION

Generally, the purpose of the regulations is to halt the burning of fuels that have hazardous constituents in boilers that could emit these constituents to the air. Three categories of fuel are defined in the regulations:

- a. Hazardous waste fuels
- b. Specification used oil fuels
- c. Off-specification used oil fuels

The regulations have been boiled down to the chart provided in paragraph 6. In order to understand the chart, you must carefully read paragraphs 3 and 4 to see if the materials you handle are affected by the new regulations. If so, use the Regulatory Responsibility Chart (paragraph 6) to see what actions, if any, you must take.

3. DEFINITION OF TERMS

a. <u>Used Oil</u>. Any oil that has been refined from crude oil, used, and as a result of such use, is contaminated by physical or chemical impurities. Wastes that contain oils that have not been used (e.g., fuel oil storage tank bottom clean-out wastes) are not used oil unless they are mixed with used oil.

Fuels:

- b. <u>Hazardous Waste Fuel</u>. Two criteria must be met for something to be considered a hazardous waste fuel:
- (1) The waste is a hazardous waste because it is listed in, or meets the general criteria in, 40 CFR 261, and
- (2) The waste is burned to recover its energy content; it is not incinerated.

Some samples of hazardous waste fuels are:

- A fuel produced by mixing a RCRA hazardous waste with virgin or used oil fuel stocks.
- A fuel containing used oil where the fuel has a total halogen content between 1,000 ppm and 4,000 ppm and no proof is given that the halogens are not in the form of hazardous halogenated waste such as methylene chloride or trichloroethane.
- A fuel containing used oil that is contaminated with PCBs.
- c. Off Specification Used Oil Fuels. Any used oil fuel that is hazardous solely because it exceeds any of the allowable levels listed in Table 1, below. These fuels are treated differently from hazardous waste fuels in that they can be blended with clean fuels to upgrade them to specification used oil fuels. Used oil is assumed to be off specification unless demonstrated otherwise.

Table 1 Used Oil Fuel Specifications:

Constituent/property

Allowable Level

Arsenic
Cadmium
Chromium
Lead
Flash Point
Total Halogens

5 ppm maximum
2 ppm maximum
10 ppm maximum
100 ppm maximum
No less than 100°F
4,000 ppm maximum

Some examples of off specification used oil fuels are:

- Used motor oil with a lead content above 100 ppm.
- Used oil with a flash point less than 100°F (perhaps with gasoline).
- Used oil with a total halogen content in excess of 4,000 ppm for which proof is given the halogens are not in the form of a halogenated hazardous waste such as methylene chloride or trichloroethane.
- d. <u>Specification Used Oil Fuels</u>. Used oil fuels that do not exceed any allowable level in Table 1 and contain no added hazardous waste. You may upgrade off specification used fuels to this category by blending with other fuels.

NOTE: Navy specifications for Fuel Oil Reclaimed (FOR) (MIL-F-24951(SA)) have been revised to include EPA used fuel oil specifications.

- Used motor oil with a lead content below 100 ppm.
- Used oil with a total halogen content less than 1,000 ppm.
- Used oil with a total halogen content between 1,000 ppm and 4,000 ppm for which proof is given that the halogens are not in the form of a halogenated hazardous waste such as methylene chloride or trichloroethane.
- e. <u>Exempt Materials</u>. Some materials are exempt from this regulation because they fit into none of the above categories. Examples are:
 - Recovered fuels that may be contaminated (but not with used oil or solvents) but have not actually been used. For example, JP4 and JP5 jet fuel and DF2 diesel fuel that have been removed from a vehicles tank so the vehicle can be serviced are contaminated by definition and Navy regulations may forbid their reuse as a vehicle fuel.
 - Used oil that is recycled by some method other than burning, unless hazardous waste has been mixed in.
 - Used oil used in firefighting training.
 - Used oil that may contain hazardous waste that is burned in a device which has qualified under 40 CFR 264 or 265 as an incinerator. *
 - Used oil that may contain hazardous wastes managed by a method other than burning. *
- * These materials and practices are already regulated under 40 CFR 262-265 and 270.

4. MANAGEMENT CATEGORIES

a. <u>Small Quantity Generator</u>. An installation that generates less than 1,000 Kg (2,200 lb.) of used oil or hazardous waste or less than the quantities of "acutely hazardous wastes" defined in 40 CFR 261.5, in any one month period.

An example of a small quantity generator is an auto service garage that generates less than 1,000 Kg (2,200 lb.) of used motor oils during any one month.

b. <u>Generator</u>. An installation that generates more than 1,000 Kg (2,200 lb.) of used oil or hazardous waste or more than the quantities of "acutely hazardous wastes" defined in 40 CFR 261.5, in any one month period.

c. <u>Transporter</u>. One who transports hazardous waste or used oil fuels off-site. The definition for "on-site" from RCRA is "the same or geographically contiguous property which may be divided by public or private right of way, provided the entrance and exit between the properties is at a crossroads intersection, and access is provided by crossing as opposed to going along, the right of way. Noncontiguous properties owned by the same person but connected by a right of way which he controls and to which the public does not have access is also considered on-site property." 40 CFR 260.10.

An example of a transporter is:

- A Navy owned tank truck or a contractor that picks up used oil from an installation's holding tanks and must travel along a public right of way before emptying, even if it empties at another Naval installation.
- d. <u>Burner</u>. One who burns any quantity of hazardous waste fuel or used oil fuel for energy recovery.

NOTE: Three categories of burners are specifically exempted from these regulations:

- Marine and diesel engines may burn specification and off specification used oil fuels, <u>provided it has not been</u> <u>mixed with a hazardous waste</u>, without being regulated.
- Specification and off specification used oil fuel may be burned in space heaters provided the heater is vented outdoors and only oil that was generated in site or received from do-it-yourself oil changers is used.
- e. <u>Industrial Boiler</u>. A boiler located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.
- f. <u>Utility Boiler</u>. A boiler that is used to produce electricity, steam or heated or cooled air for sale.
- g. <u>Nonindustrial Boiler</u>. Anything that is not an industrial or a utility boiler.
- h. <u>Industrial Furnace</u>. Any of the following enclosed devices that are integral components of manufacturing processes and that use controlled flame combustion to accomplish recovery of materials or energy: cement kilns, lime kilns, aggregate kilns (including asphalt kilns), phosphate kilns, coke ovens, blast furnaces, smelting furnaces, refining furnaces, titanium dioxide chloride process oxidation reactors, and methane reforming furnaces (and other devices as the Administrator may add to this list).

i. Marketer. One who sells hazardous waste fuel to a burner. The Office of the Secretary of Defense, after coordination with the Environmental Protection Agency, has advised that DOD installations are not "marketers" if used oil fuel or hazardous waste fuel is transferred (regardless of transfer "credits" or other accounting procedures) within the Department of Defense. It should be noted that Defense Reutilization and Marketing Offices (DRMOs) are "marketers" if they sell used oil fuel or hazardous waste fuel outside of the DOD.

5. USE OF REGULATORY RESPONSIBILITY CHART:

Look at the column under each management category that describes what you do. As you go down the column, each entry indicates, for the fuel type in parentheses, the action in that row that must be taken to comply. The letter appearing after the parentheses indicates a footnote on the following page which you should check for exemptions and an explanation. The numbers after the parentheses indicates the section number of the new regulations in enclosure (1). Read these when indicated for a more detailed explanation of what to do.

For example, look at the column under nonindustrial boilers. In the first box down, you find the letters H and O in parentheses for hazardous waste fuel and off specification fuels. The row says to stop burning these two types of fuel. Next, look at footnote B since it appears next to the parentheses. It tells you that certain burners (space heaters and marine and diesel engines) are exempt from the regulations. You may continue to burn off specification fuels in these types of burners. Finally, the number written to the right (266.31 in this case), directs you to the text of the new regulations (enclosure (1)) for reference.

Since the letter S for specification fuel does not appear in this box, you may continue to burn it in any nonindustrial burner.

Continue down the column in a similar fashion to see if any of the other actions must be taken.

FOOTNOTES

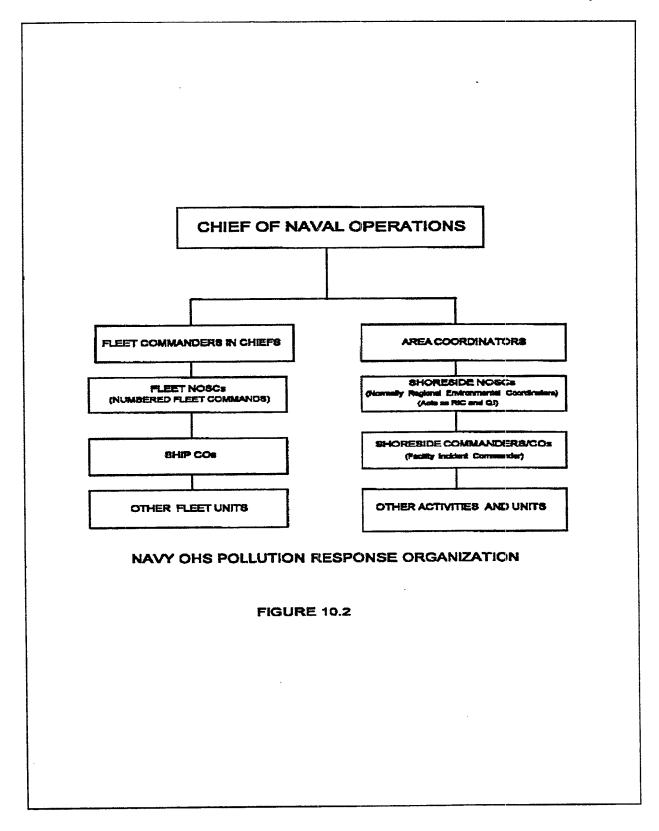
- A. The used oil fuel must be tested, or otherwise proven to meet specification used oil fuel standards. The testing (or other proof) may be by the burner or the Navy activity that supplied the used oil fuel.
 - Either the supplier of the specification used oil fuel, or the burner, must notify EPA or the authorized state that the fuel meets specifications (Enclosure (1), page 49195). Whoever notifies EPA must keep the records of analysis of

other proof for three years. (Enclosure (1), Section 266.43b(6)).

- B. There are some nonindustrial burners that are exempt from the regulations:
 - 1. Used oil space heaters burning specification and off specification used oil fuel (Enclosure (1), 266.41).
 - 2. Marine and diesel engines burning specification and off specification used oil fuel.
- C. Hazardous waste fuel shipments must be physically accompanied by a manifest. Off specification used oil fuel shippers must prepare and send an invoice that need not accompany the shipment. These documents should record any hazardous or off specification constituents. Burners and marketers must keep copies of these documents. All documents must be kept on file for 3 years.
- D. Generators of hazardous waste fuel who do not store their hazardous waste fuel more than 90 days are not subject to the full storage requirements even if they are burners. They must comply with reduced storage requirements listed in 40 CFR 262.34.

APPENDIX 19 NAVY OHS POLLUTION RESPONSE ORGANIZATION







APPENDIX 20 OIL SPILL MESSAGE FORMAT



APPENDIX 20

OIL SPILL REPORT (MESSAGE FORMAT)

- 1. **Precedence.** Oil spill messages will normally be by routine precedence provided prior telephone report has been made; if not, use priority precedence.
- 2. Classification or Special Handling Marking. Spill reports are unclassified and do not warrant special handling markings unless classified or sensitive unclassified information must be incorporated. Inclusion of such information should be avoided to the maximum extent possible to permit such reports to be handled on a solely unclassified basis.
- 3. Addressee and info blocks for oil spills to waters of the Unites States and its contiguous zone:

FM: Navy Activity (Spiller)

TO: NOSC/NOSCDR (see Chapter 11 or 17)

Operational Commander

INFO: CNO WASHINGTON DC//N45//

COMNAVSEASYSCOM WASHINGTON DC//OOC//

NFESC PORT HUENEME CA//112//

NAVPETOFF ALEXANDRIA VA//NPO//

COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//JJJ//

NOTE: IF ACTIVITY IS A DEFENSE FUEL SUPPORT POINT (DFSP) AND FUEL SPILLED BELONGS TO DLA/DFSC, MESSAGE INFO BLOCK SHOULD INCLUDE THE FOLLOWING ADDRES: DFSC CAMERON STA VA AND DFR (COGNIZANT REGION)

4. Addressee and info blocks for oil spills to waters of foreign countries:

FM: Navy Activity (Spiller)

TO: NOSC/NOSCDR (see Chapter 11 or 17)

Operational Commander

INFO: CNO WASHINGTON DC//N45//

NFESC PORT HUENEME CA//112//

NAVPETOFF ALEXANDRIA VA//NPO//

DFSC CAMERON STA VA//

DFR (COGNIZANT REGION)//

COMNAVSEASYSCOM WASHINGTON DC//OOC//

NOTE: IF ACTIVITY IS A DEFENSE FUEL SUPPORT POINT (DFSP) AND FUEL SPILLED BELONGS TO DLA/DFSC, MESSAGE INFO BLOCK SHOULD INCLUDE THE FOLLOWING ADDEES: DFSC CAMERON STA VA AND DFR (COGNIZANT REGION)

5. Body of Report for all oil spills. The body of the message will be in the following format:

UNCLAS//NO5090//

SUBJ: OIL SPILL REPORT (REPORT SYMBOL OPNAV 5090-2) (MIN: CONSIDERED)

MSGID/GENADMIN/ORIGINATOR//

RMKS/

- 1. GMT DTG RELEASE OCCURRED/DISCOVERED.
- 2. ACTIVITY/ORIGINATING RELEASE: (list name, UIC; for non-Navy spills discovered by Navy activity, list name of responsible party; (if from commercial firm under contract to Navy: list names of firm and contracting activity); for spills from unknown source, indicate whether spill is thought to have originated from Navy operations).
- 3. SPILL LOCATION: list specific location within activity (building or area designation, etc.).
- 4. AMOUNT SPILLED IN GALLONS: (best estimate; if oil/water mixture, indicate percentage oil).
- 5. TYPE OF OIL SPILLED: (choose one: diesel fuel marine (DFM); naval distillate; jet fuels (JP-8, JP-5); aviation/automotive gasoline; automotive diesel; heating fuels (grades 1 and 2, kerosene); residual burner fuel (grades 4, 5, and 6/bunker C); lube/hydraulic oils; oil/oil mixture (including slop and waste oils); oil/water mixture (including bilge waste); Other (specify); unknown (provide best estimate, if possible)).
- 6. OPERATION UNDERWAY WHEN SPILL OCCURRED: (choose one: fueling/defueling; internal transfer of fuel (includes transport of fuel from one storage area to another); bilge dewatering (including donut operations); salvage; other (specify); unknown).
- 7. SPILL CAUSE: (provide narrative description of specific spill cause; indicate if one of the following was principal

- cause: structural failure (specify); hose failure or leak; other type equipment failure (specify); valve misalignment; monitoring error; other procedural/communications error (specify); other (specify); unknown).
- 8. SLICK DESCRIPTION AND MOVEMENT: (size: length and width; color (choose one): barely visible, silvery, faint color, bright color bands, dull brown, or dark brown; on-scene wind: direction, speed; sea state; slick movement: direction, speed).
- 9. AREAS DAMAGED OR THREATENED: (name of body of water affected; nature and extent of damage to property, wildlife, or other resources (if any); areas or resources threatened).
- 10. TELEPHONIC REPORT TO NATIONAL RESPONSE CENTER (NRC) WAS/WAS NOT MADE. (If made, report number and person receiving report).
- 11. SAMPLES WERE/WERE NOT TAKEN.
- 12. CONTAINMENT METHOD PLANNED/USED: (if none, state reason; indicate which of the following equipment utilized: boom; ship's hull; camel; water spray; chemical agent (specify); other (specify)).
- 13. SPILL REMOVAL METHOD PLANNED/USED: (if none, state reason; indicate which of the following equipment utilized: DIP 1002 skimmer; DIP 3002 skimmer; SLURP skimmer; sorbents (oil-absorbing pads, chips, or other materials); dispersants; vacuum trucks/pumps; other (specify)).
- 14. PARTIES PERFORMING SPILL REMOVAL: (indicate one or more of the following: Navy (specify lead organization in charge); commercial firm under contract to Navy; USCG; EPA; state or local agency; other (specify)).
- 15. ASSISTANCE REQUIRED/ADDITIONAL COMMENTS. State whether this is a final report or if there will be follow up reports.
- 16. ACTIVITY CONTACT FOR ADDITIONAL INFORMATION: (name, code, DSN and/or commercial).



APPENDIX 21 OIL SPILL LOCKER INVENTORY



TA	BLE ERAP F.5 ON	SITE INVENTORY:	SORBENT	s (Stockph	ED)	\$1.70. W	
STOCKPILED STEM	national Stock Number	STOCKPILE LOCATION	PURCHAS E UNIT	SCRPTION SAPACITY (gel/unit)	STOCK ON HAND (units)	STOCKIN G GOAL (units)	
Sorbent Boom (white)	9330-01-281- 0337		60-ft package	7			
Sorbent Boom (green)	9330-01-334- 5036		60-ft package	7			
Sorbent Pad (34x38")	9330-01-336- 5074		bale	7			
Sorbent Pad (17x19")	9330-01-219- 7414		bale	7			
Sorbent Pillow	open purchase		bale	7			
	<u> </u>	TOTAL SORPTION C	APACITY ON	HAND (GAL):			
POINT OF CONTACT:		DAY PHONE:	24-HOUR PHONE:				
COMMENTS:							
Given scrption papacitie to calculate the total a Purchase of expendibles unavailable.	coption capacity on h	end.					

Last updated: Month 198x

STOCKPILED ITEM	NATIONAL STOCK NUMBER	STOCKPILE LOCATION	UNI T	STOCKING GCAL (units)	STOCK ON HAND (units)	
Rope, 3/8" Nylon	4020-00-946-0436		roll			
Rope, 1/2" Nylon	4020-00-106-9361		roli			
Rope, 3/4" Nylon	4020-00-141-7152		roli			
Rope, 3/8" Manila	4020-00-834-0708		coil		<u> </u>	
Rope, 1/2" Manila	4020-00-238-7732		coil		1 2000 12 1	
Rope, 3/4" Manila	4020-00-238-7734		coil			
Parachute Cord	4020-00-246-0688		si			
Shovel, Sq Nose (Long)	5120-00-293-3330		each			
Shovel, Sq Nose (Short)	5120-00-224-9326	*	each		,,	
Shovel, Rd Nose (Long)	5120-00-188-8450		each			
Shovel, Rd Nose (Short)	5120-00-293-3336		each		. W. S. W. S	
Mop Squeezer	7920-00-170-5449		each			
Mop, Cotton	7920-00-224-8726		each			
Squeegee	?		each			
Can, Garbage (30-gal)	7240-00-160-0440		each			
Rags	7920-00-223-1014		50 lb bale			
Pail, Plastic (3-gal)	7240-00-246-1097		each			
Pail, Plastic (5-gal)	7240-00-943-7105		each		A mark	
Bags, Sand	8105-00-965-2509		bale		1.3 50	
Gloves, Rubber	8415-00-935-2833		pair		Virginia.	
Goggles, Plastic	8465-01-004-2893		pair			
Bags, Plastic (large)	8105-01-183-9768		box			
					,	
POINT OF CONTACT:	NT OF CONTACT: DAY PHONE: 24-HOUR PHONE:					
COMMENTS:						
Purchase of tools and suppli		replanished as needed, so y	ear of purch	***		

APPENDIX 22

OIL SPILL EQUIPMENT



OIL SPILL EQUIPMENT

LARGE SKIMMERS (DIP3001) are self-contained 26-foot-long vessels. Each system includes onboard recovered oil storage of 1500 gallons and an offloading pump for oil transfer to a shoreside treatment or disposal site. The skimmers are self-propelled, manned by a crew of two, and designed to clean up oil spills on inland waters and harbors. The units can operate in waves up to 3 feet high. Some skimmer systems also include a powered debris basket, a crane for removal of debris and a macerator/grinder for processing the debris.

The BOOM PLATFORM is a twin-hulled or tri-hulled craft powered by two 85-horsepower outboard engines. The platforms transport and deploy oil spill control equipment in harbors and inland waterways. The platform deck is equipped with an operator console, guardrails and below-deck storage space. The craft is capable of operating safely in 3-foot waves, 2-knot currents and 20-knot winds.

BOOM SYSTEMS CLASS I and II are oil barriers that normally are stored out of the water in a protective enclosure. They are usually deployed only after an oil spill has occurred or during fueling operations. They also may be referred to as deployable boom. A boom system consists of an above-water freeboard, a below-water skirt, attached floats, ballast and tension-carrying members. A Class I boom is 17-1/2 inches overall with 7-1/2 inches freeboard, whereas a Class II boom is 28 inches overall with 12 inches freeboard. For inventory applications, all booms have been incorporated into a system concept. Each system consists of 500 linear feet of boom (ten 50-foot lengths). All boom requirements are to be expressed in boom systems in lieu of linear feet.

PERMANENT BOOM is used for extended deployment periods and remains positioned in the water. They are used primarily in high spill risk areas that experience a low ship operating tempo. Fueling piers and carrier berths are examples of potential permanent boom sites.

BOOM MOORING SYSTEM is used to moor deployable boom in open water. For the system to be effective, the following conditions must apply: 1) water less than 100 feet deep; 2) sandy bottom; 3) current less than one knot; and 4) wind under 25 knots. Each system contains various mooring lines, a 75-pound anchor, 12 feet of chain link, a spring buoy (500-pound buoyancy rated) and a crown buoy (100-pound buoyancy rated).

UTILITY BOATS are used to tow oil containment boom to the spill site. The 19- to 24-foot boats are trailer mounted and have a multiple "vee" fiberglass hull. Each boat is equipped with a Sampson Towing Post rated at 6,000 pounds static pull. Each post is fitted with an expanded metal safety screen. The boats are generally powered by 85-horsepower and 150 horsepower outboard engines with remote controls located on an operator's console. Engines are normally procured separately from the utility boats.

VACUUM TRUCKS. Special heavy duty trucks designed to pick up oil on water or land. They are equipped with a self-contained weir system and a storage tank capacity of 2200 gallons. They can easily pick up oil near the shore or around pier pilings.

RADIO RESPONSE SKIMMERS. Are currently under design with initial tests to be completed by the end of 1995 and production by March 1996. Initial contract for 29 units with a target completion of 70 units. The rapid response skimmer will eventually replace all of the DIP 3001 skimmers. These units are much lighter and come with trailers. The units have a maximum speed of 15 kts and internal storage capacity of 1000 gallons. They will also carry an additional 1000 gallon floatable bladder.

APPENDIX 23 AIRCRAFT REFUELER DRIVER TRAINING



Aircraft Refueler Driver Training

1. <u>PURPOSE</u>. To establish standard procedures to insure that all aircraft and industrial drivers are trained and licensed to operate aviation refuelers and defuelers at NAS Adak.

2. PERSONNEL.

- a. Candidate operator.
- b. Licensed operator.
- c. Fuels Division Training Petty Officer (TPO).
- d. Fuels Division Leading Chief Petty Officer (LCPO).
- e. Fuels Management Officer (FMO).
- 3. INITIAL TRAINING. A candidate operator must possess a valid state drivers license. A candidate operator must complete both indoctrination and qualification training under the supervision of a licensed driving instructor prior to receiving a U.S. Government motor vehicle operator identification card. A copy of the driver qualification checkoff sheet will be placed in the training jacket of each candidate operator. It will be used to document progress towards qualification. The qualification training is comprised of the following:

a. <u>Indoctrination</u> training.

- (1) The candidate operator will learn the operations of the mobile refueler and defueler.
- (2) The candidate operator will ride with a qualified licensed driver for a two week time period.
- (3) The candidate operator will complete the following fundamentals and systems PQS for Fuel Operations Ashore:
 - (a) NAVEDTRA 43288-307 (Refueling Operator)
 - (b) NAVEDTRA 43288-308 (Defueling Operator)
 - (c) NAVEDTRA 43288-309 (Ground Fuels Operator)
 - (d) NAVEDTRA 43288-310 (Direct Refueling Operator)
- (3) Upon completion of (1) through (3), the candidate operator will receive a learners permit. A copy of the permit will be forwarded to the FMO. The original must be with the candidate operator at all times.

b. Qualification training.

- (1) The candidate operator will demonstrate operating knowledge of the aviation refueler and defueler.
- (2) The candidate operator wil' drive and operate an aviation refueler/defueler for two weeks ccompanied by a licensed operator.
- (3) The candidate operator will complete the watchstation portion of the following PQS for Fuel Operations Ashore:
 - (a) NAVEDTRA 43288-307 (Refueling Operator)
 - (b) NAVEDTRA 43288-308 (Defueling Operator)
 - (c) NAVEDTRA 43288-309 (Ground Fuels Operator)
 - (d) NAVEDTRA 43288-310 (Direct Refueling Operator)
 - (4) The candidate operator will pass a written exam.
 - (5) The candidate operator will pass a road test.

Final PQS certification will be accomplished upon completion of the qualification portion of driver training. Appropriate entries will be made in the training jacket and a U.S. Government motor vehicle operator identification card will be issued.

4. SUPPLEMENTAL TRAINING.

- a. <u>Safety Training</u>. Each licensed operator will receive 3 hours of driver safety training each quarter (one hour per month).
- b. <u>Spot Check Program</u>. Periodically and unannounced, the training petty officer shall ride with all licensed operators and observe their driving technique. Monthly driver evaluations will be made and entered into the individual training record.

c. Re-certification Program.

(1) Semi-annually, each licensed operator will be required to complete a re-certification road test. Each licensed operator will complete an obstacle course comprised of equally spaced safety cones (cones should be placed 32 ft apart. The total length of an aircraft refueler is 30 ft). The driver will inspect the truck for any safety infractions, then proceed through the course. A maximum of four cones can be hit. If five or more are hit the driver will go through the obstacle course again. If the driver again fails, the training petty officer and LPO will evaluate the driver's past performance and make a recommendation for additional training.

- (2) The re-certification process will be scheduled to coincide with the changing of the seasons (i.e. summer to winter and vice versa). This will allow for the training petty officer to re-emphasize any special precautions required for the up coming season. The written test will reflect these precautions.
- 5. MISHAP INVESTIGATION. Any mishap or fuel related incident will be investigated by the training petty officer. All findings will be routed to the Supply Officer via the FMO. A fuels mishap point system will established to assist in the evaluation of driving records. The point system will be comprised of the following:
 - a. Excessive Speed 2 pt.
 - b. Hazardous driving 3 pt.
 - c. Minor accident 4 pt. (no damage to truck or equipment)
 - d. Accident 5 pt. (damage to truck or equipment)

Once a driver has accumulated 10 points, he or she will have to complete the driver training program again and be re-certified.

A report chit will be written for any accident that can be attributed to negligent driving (i.e. sleeping, leaving appointed place of duty, etc).

6. EQUIPMENT UTILIZED.

- a. Aviation refueler/defueler.
- b. Safety cones.

7. FORMS AND DOCUMENTS UTILIZED.

- a. Training record.
- b. Training documentation.
 - (1) Documented safety lectures.
 - (2) Signed PQS program sheets.
 - (3) Final certification letter.
 - (4) Recertification letter.
 - (5) Driver training qualification check-off sheets.
- c. Training monitor sheet.
- d. U.S. Government motor vehicle operators identification card.

8. <u>DISTRIBUTION OF FORMS</u>.

- a. Original training documentation to individual training file.
 - (1) Copy of final certification letter to FMO.
 - (2) Copy of recertification letter to FMO.
 - b. Original operator ID card to respective operator.
 - (1) Copy of operators ID card to FMO.

DRIVER QUALIFICATION CHECKOFF SHEET

•	<u>T</u>	NL	OCTRINATION TRAINING.
	()	Ride two weeks with a qualified licensed driver.
			Name: Date:
	()	Complete NAVEDTRA 43288-307 Fundamentals & Systems PQS
			Name: Date:
	()	Complete NAVEDTRA 43288-308 Fundamentals & Systems PQS
			Name: Date:
	()	Complete NAVEDTRA 43288-309 Fundamentals & Systems PQS
			Name: Date:
	()	Complete NAVEDTRA 43288-310 Fundamentals & Systems PQS
			Name: Date:
	()	Receive learners permit.
			Name: Date:
	Qt	JA]	LIFICATION TRAINING.
	()	Accompanied by a qualified driver, operate a refueler vehicle for two weeks.
			Name:Date:
	()	Complete NAVEDTRA 43288-307 watchstation PQS.
			Name:Date:
	()	Complete NAVEDTRA 43288-308 watchstation PQS.
			Name:Date:
	()	Complete NAVEDTRA 43288-309 watchstation PQS.
			Name: Date:
	()	Complete NAVEDTRA 43288-310 watchstation PQS.
			Name: Date:

	()	Pass a road test.	
			Name:	Date:
iden			Receive U. S. Government cation card.	motor vehicle operator
			Name:	Date:
3.	RE	<u>}-(</u>	CERTIFICATION TRAINING.	
	()	Complete a road test.	
	()	Re-certification #1.	
			Name:	Date:
	,	١.	Complete a read test	
	•	•	Complete a road test.	
	()	Re-certification #2.	
			Name:	Date:
	,	,	Complete a read test	
	•	•	Complete a road test.	
	()	Re-certification #3.	
			Name:	Date:
	()	Complete a road test.	
	•	•	Re-certification #4.	
	ı	,		Pata.
			Name:	Date:
	()	Complete a road test.	
	()	Re-certification #5.	
			Name:	Date:
	()	Complete a road test.	
	()	Re-certification #6.	
			Name:	Date: